

ENCLOSURES

A copy of "The Mahalanobis-Taguchi System" by Taguchi et al., McGraw Hill, 2000 is enclosed herewith consistent with the filed PTO-1449 form.

REMARKS

Applicant notes with appreciation the careful reading of the pending application. This amendment is submitted in response thereto. While the enclosed reference Taguchi et al., as cited in the filed PTO-1449 was provided in the parent application, a duplicate is provided herewith. Claims 1-17 remain pending in the application. Claims 1 and 11 have been amended. Support for the amendments to claim 1 are found in the specification at page 20, lines 1-9. The amendments to claim 11 are formalistic in nature and find support in the claims and specification as filed. As such, it is submitted that no new matter has been added to the application by way of this amendment.

Currently, pending claims 1-17 stand rejected under 35 U.S.C. §112, first paragraph, in regard to the instance where all the variables have a zero value standard deviation thereby precluding the calculation of a Mahalanobis distance.

In response to this rejection, claim 1 has been amended to address the Examiner's valid concern so that claim 1 now reads: "where at least one of said plurality of normal datum has non-zero standard deviation". With at least one non-zero standard deviation value, the inventive process of claim 1 is submitted to be co-terminus with the specification teachings.

Claim 11 and those claims that depend therefrom are submitted to be wholly enabled and are initially presented on the basis that claim 11 includes the limitation step:

“calculate Gram-Schmidt orthogonal vectors satisfying the equation:

$$U_1 = (u_{11}, u_{12}, \dots, u_{1n})$$

$$U_2 = (u_{21}, u_{22}, \dots, u_{2n})$$

$$U_k = (u_{k1}, u_{k2}, \dots, u_{kn})$$

for a sample size n and observations on k variables, wherein the mean of said Gram-Schmidt orthogonal vectors is zero”.

Applicant submits that a set of Gram-Schmidt orthogonal vectors that satisfy the above limitation cannot have all zero value standard deviations. As such, Applicant submits that one of skill in the art upon satisfying this limitation of claim 11 is necessarily able to proceed with the subsequent claimed steps to achieve the taught multivariate analysis. To aid in the Examiner’s review of this argument, his attention is drawn to Number 4, spanning pages 21 and 22 for clarification. Additionally, claim 11 has been amended to explicitly recite this inherent feature of the claimed invention.

In light of the above amendments and remarks, reconsideration and withdrawal of the rejection as to claims 1-17 under 35 U.S.C. §112, first paragraph, is requested.

Summary

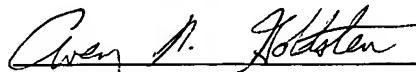
Claims 1-17 are the claims pending in this application. In light of the above amendments and remarks, it is submitted that all the pending claims are directed to allowable and patentable subject matter. Allowance of these claims and the passing of this application to issuance are

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solicited. Should the Examiner find to the contrary, it is respectfully requested that the undersigned attorney in charge of this application be contacted.

Respectfully submitted,


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DATE OF DEPOSIT September 15, 2005

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